

Abstract

A method and apparatus are provided for scheduling tasks within a computing device such as a communication switch. When a task is to be scheduled, other tasks in the work queue are analyzed to see if any can be executed simultaneously with the task to be scheduled. If so, the two tasks are combined to form a combined task, and the combined task is placed within the job queue. In addition, if the computing device has insufficient resources to execute the task to be scheduled, the task is placed back into the work queue for future scheduling. This is done in a way which avoids immediate reselection of the task for scheduling. Task processing efficiency is increased, since combining tasks reduces the waiting time for lower priority tasks, and tasks for which there are insufficient resources are delayed only a short while before a new scheduling attempt, rather than rejecting the task altogether.